



# An Environmental Blueprint for California

How Governor Brown can ensure the State's  
environmental health and economic prosperity

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EMMETT CENTER ON  
CLIMATE CHANGE AND  
THE ENVIRONMENT

EVAN FRANKEL  
ENVIRONMENTAL LAW  
& POLICY PROGRAM  
UCLA SCHOOL OF LAW



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A comprehensive, statewide system of environmental monitoring and modeling is needed, one that takes advantage of California's technology expertise and long-range environmental vision.

## Introduction

Governor Brown's return to the Capitol comes at a critical moment in California's history. The State's long-term prosperity is vulnerable to climate change, energy insecurity, environmental threats to public health, and a growing scarcity of key resources. California is exceptionally well placed to overcome these challenges, but doing so will require tough choices and strong leadership. The election of Jerry Brown to the governor's office and the voters' clear repudiation of Proposition 23 show that Californians want strong action in favor of a clean, healthy, prosperous future.

The Governor has a tremendous opportunity to set our state on the right path and build on its past environmental successes. Environmental protection and fiscal prudence can be synergistic goals; California's historic leadership in environmental protection has brought with it enormous benefits to our economy and public health. Only by continuing to lead will the State continue to reap these benefits.

Governor Brown must first strengthen California's foundation for environmental protection, as described in Part I of our blueprint. Stable, robust funding for core environmental regulatory activities will set the tone for California's future. A comprehensive, statewide system of environmental monitoring and modeling is needed, one that takes advantage of California's technology expertise and long-range environmental vision. A renewed emphasis on enforcement of existing environmental laws will complement a comprehensive monitoring program. And the California Environmental Quality Act (CEQA) must be utilized effectively, by recognizing proper baselines for measuring environmental harms and thoroughly analyzing serious alternatives to environmentally harmful agency actions.

California's foundation for environmental protection will be tested by climate and energy instability. Here, Governor Brown has already recognized, through his Clean Energy Plan, the need for renewable energy investment and the economic benefits of such investment. Part II of our blueprint explains how a combination of initiatives can promote renewable energy opportunities, emphasize energy efficiency, foster green, livable communities and make California more resilient to a changing climate. By ensuring climate and energy security, California will promote green jobs and green technology while building a new energy generation system that benefits generations to come.

In traditional areas of environmental regulation, many cost-effective initiatives are available to California that would benefit both the environment and the economy. California can charge polluters for the privilege of using its limited environmental resources and thereby impose market incentives to reduce pollution levels. Part III of our blueprint details specific actions that the Governor should support in the areas of water pollution, water supply, coastal resources, chemical risks, air quality, and biodiversity. By creating and maintaining a healthy environment for all Californians, the State can ensure a robust future for its residents and businesses.



# 1 Strengthening the Foundation for Environmental Protection

In this section, we start with a series of proposals that cut across many environmental issues and help to strengthen the foundation for environmental protection in the State. These priorities are the ones on which many other successes depend: strong funding, robust data, effective implementation and enforcement, and meaningful impact analysis.

## Protect and restore funding for important environmental initiatives

Any conversation about the State's priorities has to begin with the reality of our broken budget. It is critical, however, to recognize that California's economic future depends on its environmental health. Driving investment in renewable energy and environmental protection returns economic benefits to California. Moreover, if we fail to recognize the importance of environmental quality, the significant public health costs of failing to protect our public health and natural resources will prove to be a drain on the State's economy. Finally, as our world transitions away from a fossil fuel-based economy over the coming decades, California has the opportunity either to lead the way and to reap the benefits of its leadership, or to lag behind and to fail to adapt its economy.

The choice is clear. We can no longer underfund our State's work to foster a clean energy economy and to protect the environment and public health. Ironically, we underfund even basic environmental regulatory activities, such as monitoring, permit-writing, and enforcement, that have significant revenue-generating potential through assessing appropriate penalties or

other pricing on activities that adversely affect the State's residents. Although budget trade-offs will be difficult in this time of austerity, it is imperative that the Governor **calls for stable, robust funding for our State's core environmental initiatives**. Where such funding may depend on regulatory fees, the Governor should provide all necessary resources and support to agencies and local governments looking for ways to enact such fees consistent with Proposition 26.

## Improve environmental monitoring and modeling

Myriad California agencies manage a variety of environmental quality monitoring programs. While environmental data collection requires specialized knowledge and resources, much of that knowledge can be generalized across environmental problems and agency jurisdictions. Environmental modeling requires technical expertise but also should account for entire ecosystems, not artificial distinctions between agency jurisdictions. For example, to model mercury contamination in California's environment, it is necessary to account for air pollution, surface water pollution (including deposition of mercury from the air) and potential groundwater movement and contamination.

Environmental monitoring and modeling also requires long-term vision, along with the requisite long-term commitment of resources. The Governor should **establish an independent, statewide agency or council devoted to compilation, modeling, prediction and presentation of environmental quality data**. This change would have three main benefits.

The choice is clear. We can no longer underfund our State's work to foster a clean energy economy and to protect the environment and public health.



First, California could assess the progress of agency programs without co-mingling regulatory policy and enforcement priorities. Second, it would facilitate ecosystem-based assessments. And finally, combining disparate environmental monitoring and assessment programs would promote efficient use of funding.

### Prioritize robust, effective enforcement of existing law

The most well-thought-out, well-intentioned laws cannot accomplish their goals without effective implementation and enforcement. For a variety of reasons, including lack of funding, bureaucratic priorities, and strategic litigation by regulated parties, our State agencies have not excelled at implementing and enforcing our laws. The Governor should **call for a renewed emphasis on the enforcement of existing environmental laws**. He should ensure that every State environmental and energy agency both has sufficient resources to implement and enforce our laws effectively and prioritizes that implementation and enforcement.

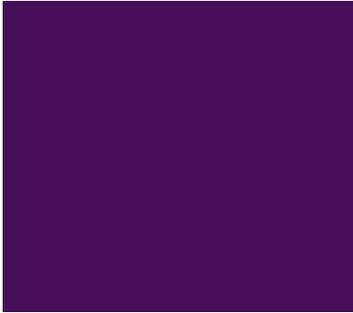
### Use environmental impact analysis to protect California's resources

It is a fundamental principle that government should understand and, where possible, avoid the adverse environmental impacts of its actions. California agencies rely on environmental impact reports (EIRs) required by the California Environmental Quality Act (CEQA) to adequately assess and mitigate environmental impacts of their projects.

The Governor should assist agencies to make the best use of this important law. First, the Governor should not stand for the exemption of special-interest projects from CEQA. Often sought from the legislature by powerful developers, such exemptions override agency expertise, rob community stakeholders of input, and undermine CEQA's central goal of reducing environmental harms. Second, through guidance and clear communication of expectations, he should **provide a robust role for the Office of Planning and Research (OPR) to issue guidance to government agencies on pressing CEQA issues**. OPR has been underutilized in recent years, and has the potential to provide clear leadership to ensure that California and its local governments use CEQA appropriately.

Among OPR's most important tasks will be to ensure that State agencies **employ a proper baseline for measuring environmental harms and thoroughly analyze less harmful alternatives** before taking important actions. And there are some situations in which specific guidance may be necessary to ensure that CEQA helps, rather than hinders, truly sustainable development. While the State must be careful not to shortcut CEQA review in any situation where it is warranted, OPR should **develop more specific guidelines to assist local governments with "tiering" and streamlining of environmental review for sustainable development projects** under California's Sustainable Communities and Climate Protection Act, SB 375 (Steinberg, 2008), and other laws.

The most well-thought-out, well-intentioned laws cannot accomplish their goals without effective implementation and enforcement.



## 2 Ensuring Climate and Energy Security in California

Two interlinked concepts threaten California's fiscal and environmental future: climate change and energy instability. Governor Brown's Clean Energy Plan recognizes the need for more renewable energy investment and the economic benefits that such investment could bring California. Expanding on the Clean Energy Plan, California can take specific steps to promote a more secure climate and energy future.

The global transition to cleaner, lower-carbon energy sources is underway—and California has a terrific opportunity to lead the way.

### Implement AB 32 and Executive Order S-3-05 aggressively

Governor Brown should continue to **support aggressive efforts by the California Air Resources Board to reduce greenhouse gas emissions under existing law.** California's Climate Change Solutions Act, AB 32 (Nunez, 2006), calls for a 30% decrease from business-as-usual emissions by 2020. An Executive Order issued by Governor Schwarzenegger calls for a further 80% reduction by 2050. In light of the importance of California's leadership role nationally and internationally on climate and energy security, the importance of clean energy investment to California's economy, and the defeat of Proposition 23, which confirmed Californians' commitment to these ideas, it is crucial that Governor Brown lend all possible support to these ongoing efforts.

### Promote and expand clean, renewable energy opportunities

The global transition to cleaner, lower-carbon energy sources is underway—and California has a terrific opportunity to lead the way. Strongly supporting renewable energy technologies will not only shrink our carbon footprint but also grow our economy. We are off to a great start: California has a goal of 33% renewable energy portfolio by 2020. Los Angeles has set a goal to eliminate coal power and meet 40% of its electricity needs from renewables by 2020. Governor Brown's Clean Energy Plan calls for 12,000 MW of localized energy generation along with 8,000 MW of large-scale renewables by 2020. But more can be done.



The incoming Governor should prioritize these renewable energy initiatives:

**Support a legislative bill adopting the 33% renewable portfolio standard into law.** A robust and legally enforceable RPS is necessary in order to nudge our utilities and businesses forward into the alternative energy economy that will enable California to remain a national and international leader in innovation, to model crucial efforts to combat climate change, and to position the State for economic gains in the coming decades.

**Expand Renewable Power Payment programs (also known as feed-in tariffs).** A statewide

Renewable Power Payment program should provide for the widest possible range of commercial, industrial, institutional, and residential property owners to sell back to the utility the energy they produce from solar or wind generation. These programs should include all utility service areas in the state, and should pay rates competitive enough to attract participation while ensuring that ratepayers do not overpay for electricity. Similar feed-in tariff programs have created 75% of all solar photovoltaic and 45% of all wind development worldwide. An effectively designed Renewable Power Payment policy produces high-wage jobs, generates renewable energy, reduces peaking and transmission costs, and drives green technology growth with a strong market signal.

**Strongly support the Property-Assessed Clean Energy (PACE) program for renewable energy installation.** PACE provides California's local governments an innovative means to help residents pay to install solar energy generation on their properties. PACE provides upfront bond financing—in essence, a loan to pay for the costs of installation—that participants repay over time through a property tax assessment. Because PACE repayment obligations stay with the property, property owners need not fear that they will lose money if they sell their property before the renewable energy installation's energy savings pays for itself. A new property owner would get both the benefit of the solar installation and the obligation to continue to repay the loan. Unfortunately, a federal agency has issued a rule that has prevented local governments from implementing PACE programs. As Attorney General, Jerry Brown sued the federal government to keep PACE programs viable. As Governor, he should keep the pressure on the U.S. government to allow this innovative means of encouraging solar installations.

**Ensure that the State develops sufficient energy storage capacity to assist with renewable development.** AB 2514 (Skinner), passed in 2010 with Attorney General Brown's support, takes a first step by requiring the Public Utilities Commission (PUC) to determine, by 2013, appropriate energy storage system targets to be met by 2015 and 2020. Use of energy storage systems will

assist utilities to integrate large amounts of intermittent renewable energy into the grid (and help meet the 33% renewable portfolio standard by 2020). The Governor should actively support vigorous implementation of this law, and should support work to make energy storage options economically viable.

### Emphasize energy efficiency

Energy efficiency measures are the free lunch of the climate and energy world: many measures are not only cost-effective, they actually pay to adopt. Such measures allow us to shrink our energy usage, carbon footprint, and costs all at the same time. Yet surprisingly, many profitable efficiency measures remain on the table, not yet adopted by those who would profit from them, either because of lack of information, lack of up-front financing, or for other reasons. The Governor and the State therefore have important roles to play in making sure these easy gains are realized.

California has, of course, a long history of successful energy efficiency regulation. It also has a goal of zero net energy by 2020 for new residential construction; by 2030 for new nonresidential construction; and by 2030 for 50% of existing buildings.

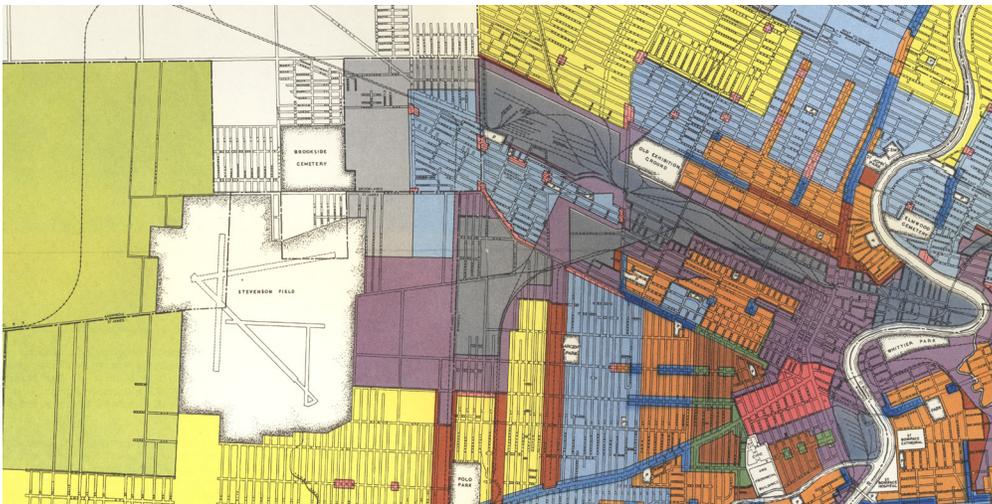


Here is what Governor Brown can do to further these energy efficiency efforts:

**Support the aggressive update to California's building energy efficiency standards by the California Energy Commission.** California has been a national leader in energy efficiency since Governor Brown's first tenure as Governor in the 1970s. The next iteration of standards will be underway in 2011, and the Governor should continue to show leadership to tighten our energy efficiency standards.

**Encourage early adoption of zero net energy goals in three key groups: schools, office properties and chain retailers.** These properties have especially significant potential for concentrated energy savings.

An effectively designed feed-in tariff policy produces high-wage jobs, generates renewable energy, reduces peaking and transmission costs, and drives green-technology growth with a strong market signal.



**Support implementation of the PACE program for residential energy efficiency improvements.** This program, discussed above, can and should be used for energy efficiency upgrades but has historically been too focused on the installation of rooftop solar, even when efficiency improvements would be more cost-effective.

**Require disclosure of energy performance when properties in California are sold.** Market demand for energy efficiency improvements can be driven by better consumer information at the time of purchase. AB 1103 (Saldana, 2007) already mandates energy use disclosures for nonresidential building owners. California could use its existing Home Energy Rating System, which certifies home energy raters, and expand AB 1103 to mandate residential disclosures.

**Shift to dynamic retail rates (“time of day” pricing) for electricity by 2015,** in order to better inform the market of the shifting cost of electricity during a 24-hour period. Dynamic rates, along with real-time electric consumption reports for consumers from smart meter technology, will encourage residential energy efficiency and allow for better valuation of energy storage by the market.

**Implement smart grid measures.** Smart grid implementation will help to educate consumers about their energy consumption while also preparing California’s electrical grid for real-time consumption monitoring and distributed generation. A smart grid also will facilitate introduction of dynamic retail rates.

**Explore incentives that will promote improvements to the electric transmission grid and distribution system.** Currently, a few power utilities own nearly all of California’s major electric transmission lines, and the current structure of ownership and operation provides little incentive for transmission line investment. The transmission of energy should be opened to competition from private investors, and the distribution system should be more transparent.

### **Foster green and livable communities through land use and transit reform**

Our land use and transportation systems too often work to discourage communities that are more sustainable, despite the advantages of more open space, shorter commutes, and less traffic. Instead of sustainable development, we get piecemealed subdivision projects that cut into prime agricultural and rural land. Moreover, growth in California’s transportation sector—particularly increases in vehicle miles traveled (VMT)—threatens to thwart State efforts to reduce greenhouse gas emissions. Better public transportation, better land use planning, and the creation of vibrant, walkable community centers in urban areas can save California billions of dollars and reduce vehicle CO<sub>2</sub> emissions more than 30 percent. Sustainable development, with a focus on mass transit and compact mixed-use neighborhoods, must therefore become the new norm in California and the State’s land use system must be reformed to prevent poor land use development choices.

Better public transportation and the creation of vibrant, walkable community centers in urban areas can save California billions of dollars and reduce vehicle CO<sub>2</sub> emissions more than 30 percent.



Here are some ways the Governor can help accomplish land use and transit reform:

**Develop dedicated revenue streams to pay for the expansion, upgrade and maintenance of public transportation.** State transit funding has been notoriously unstable in recent years, and a strong transit system cannot exist without stable funding. Increasing the gas tax should be part of the discussion, though with consideration given to avoiding the most regressive impacts of such a tax.

**Limit the scope and frequency of General Plan Amendments.** Often, local governments modify their local General Plans—the blueprints for future development in California’s communities—to accommodate new developments that fail to conform to General Plan constraints. The result is often large-scale conversions of rural, agricultural and open space to urban and suburban use with little oversight or long-term planning. Instead, major amendments should be permitted only on a set, multi-year cycle, to allow for a thorough review of the impacts of proposed amendments to sustainable development in the region.

**Modify the Circulation Element of local General Plans to emphasize reduced travel distances and public transit.** Currently, mandatory circulation elements focus heavily on

vehicle traffic; public transit is optional and reduction of travel distances is not a strong focus in General Plans. Instead, in keeping with a sustainable development approach, the Circulation Element should prompt local jurisdictions to develop land use and mobility alternatives that reduce average travel distances, increase access to public transit and reduce transportation-related infrastructure costs.

**Provide localities with support for congestion pricing.** Helping to develop and support congestion pricing programs—which charge drivers a user fee in specific, congested areas—would improve traffic, reduce greenhouse gases, and fund transportation improvements. The State could offer matching funding for studies along with shared technical expertise, based in part on the experience of the San Francisco County Transportation Authority. Finding innovative ways to decrease traffic congestion in California cities will provide economic and health benefits to California citizens.

**Provide local governments with funding and technical assistance to support sustainable development planning.** The foundation of state efforts to promote sustainable development is the Sustainable Communities Strategy required by SB 375. The Strategy mandates regional planning that includes projections of housing growth and transportation needs in order to meet greenhouse gas emission targets. But local planning departments, where the rubber meets the road in develop-

ment decision-making, often lack resources. The state could address the need for technical expertise, for example, by helping local governments to develop form-based codes to encourage sustainable development at a neighborhood, not parcel-specific, level.

**Ensure that existing state funds for government buildings and government-funded projects are used consistent with sustainable development planning principles.** AB 857 (Wiggins, 2002) requires that state planning efforts support sustainable development, but implementation to date has been lacking. State funding for local developments should be made contingent on compliance with sustainable development strategies. Discretionary infrastructure funding—grants, contracts, and budgeting—should be preferentially directed to sustainable development in existing communities. Sales and property tax incentives should encourage sustainable development rather than large-scale commercial development.

## Ensure California's resilience to a changing climate

Even with our best efforts, California cannot prevent the warming already locked in to our climate system. But neither the State, nor homeowners, nor private businesses properly account for the risk of climate changes occurring now and in the near future. Changes such as sea level rise, water supply disruption, increased wildfire risk, and temperature shifts will radically alter the environment and economy, and we need to do more to be ready. In 2009, California developed a Climate Adaptation Strategy covering seven areas: public health, biodiversity and habitat, ocean and coastal resources, water management, agriculture, forestry, and transportation and energy infrastructure.



The Governor should improve the State's resilience to climate change's impacts in these ways:

**Implement key recommendations from the State's Climate Adaptation Strategy, and follow up to ensure that the recommendations have resulted in proper changes to agency actions.** For example, the Strategy recommends changes to CEQA guidelines and agency-specific adaptation plans to address the hazards resulting from climate change. Such changes, in themselves, may be insufficient unless the Governor reinforces that these are executive priorities.



**Mandate that local, regional and state planning efforts include climate adaptation assessments, including coastal vulnerability and fire risk.** The California Coastal Commission should be given authority to require that regularly scheduled updates to Local Coastal Plans (LCPs) address sea level rise. State-managed and public trust lands managed by local trustees should also assess vulnerability to climate change. Similarly, agricultural planning should account for climate risks such as increased drought risk, changing snowpack trends, and shifts in surface air temperatures.

**Develop a database on coastal hazards.** This database would include information on coastal erosion and flood risk assessments, essential for risk management, climate adaptation and insurance assessment in California.

**Encourage insurance pricing mechanisms that discourage risky behavior and encourage actions that improve community resilience.** Support insurance reforms that encourage pricing premiums to reflect extraordinary risks presented by climate change and other hazards. Californians subsidize development in high-risk areas, such as wildland/urban interface areas prone to wildfire; instead, the economic burdens should be borne more proportionately by developers, property owners, and local governments that opt to develop and populate high-risk areas.



## 3 Protecting and Improving California's Environmental Quality with Fiscally Responsible Methods

Lastly, this section gives our view of the most important work to be done in traditional areas of environmental regulation, with a special emphasis on cost-effective initiatives.

### Fight water pollution

California's residents deeply value the protection of our State's water quality, and are increasingly concerned about it, with good reason. While much of our water is getting cleaner, the State's list of waters failing to meet water quality standards for specific pollutants has steadily increased, due largely to better data collection (revealing problems where we couldn't confirm them before) and more stringent standards. The State needs to step up enforcement of its water quality permits and other legal requirements, and to provide more resources to our water regulators to ensure they can do their jobs effectively.



To fight water pollution, the Governor should:

**Implement and enforce water quality objectives and standards throughout the State to ensure that our waterways are safe for recreation, drinking, and other important goals.** State water regulators in Los Angeles and other areas are being increasingly aggressive in implementing water quality requirements through stormwater and sewage permitting. The Central Valley Regional Water Quality Control Board just approved tighter wastewater treatment

requirements for Sacramento, which would reduce serious problems from ammonia and other contaminants that affect water supply and environmental quality. The Governor should support these requirements on appeal, ensure their robust implementation and enforcement, and encourage similar requirements in other regions in order to improve dramatically the State's water quality. Stormwater permits and sewage wastewater permits should hold operators and local governments accountable to strong, specific standards.

**Improve monitoring of freshwater streams, ocean outfalls, and groundwater for pollutants.** This could be accomplished in conjunction with a broader plan, discussed above in Part I (Improve environmental monitoring and modeling), to move to a comprehensive statewide environmental monitoring program. Without robust monitoring, efforts to improve permit implementation and enforcement cannot succeed.

**Restrict operators that are not in compliance with water quality programs from obtaining other environmental permits, such as pesticide use permits.** For example, AB 2595 (Huffman, 2010) would have required compliance with water quality programs before an operator could obtain a pesticide use operator identification number.

**Reassess the plan for California's Nonpoint Source Pollution Control Program.** This plan, which ends in 2013, provides an implementation strategy to manage surface runoff pollution. First, California should assess this 15-year

Plan to determine its accomplishments and failures. Second, a new 15-year plan should be developed that builds on California's experience in controlling runoff pollution.

**Explore methods to set price signals on less toxic pollutants, such as sediment, nitrogen, and phosphorus.** For example, EPA has issued guidance on implementing water quality trading to reduce runoff pollution using existing permit and other mechanisms.

### Protect our water supply

Numerous studies predict that California is at high risk of a severe water shortage crisis in the coming decades. Moreover, transport of water has significant environmental consequences and accounts for 20 percent of California's total electricity use. Yet Californians are still incredibly water inefficient. The average water use in California households is 240 gallons of water per day, compared with a national average of 170.



The Governor can take the following actions to help the State use water more intelligently, to protect the water we have, and to figure out how to ensure that the State's water future is resilient to droughts, decreased snowpack, and other existing and anticipated threats.

**Make sure that commercial irrigators have incentives to use water as efficiently as possible.** For example, the State should develop irrigation performance metrics based on efficiency rather than total water utilized. A collaborative initiative of farmers, environmental groups and other stakeholders is developing efficiency metrics such as Water Use Efficiency ("crop per drop") and Simple Irrigation Efficiency (the crop's water needs compared to the amount of irrigation water applied), which could provide a promising start.

**Ensure the regulation and management of groundwater use everywhere in the State.** Currently, groundwater use remains unregulated in many parts of the State. Where there is regulation at the local and regional level,



it is accomplished through a patchwork of local ordinances, special districts, and court adjudications. Recently enacted legislation, SBx7 6 (Steinberg, 2009), requires the Department of Water Resources to update its groundwater report by 2012 and to monitor groundwater elevation in coordination with local volunteer agencies. Building on this coordinated effort to monitor groundwater, the Governor should advance legislation to create a statewide network of mandatory local groundwater management programs with minimum requirements.

**Take steps to price water effectively.** Pricing water can have a dramatic effect on water usage. Implementing comprehensive regulation to provide market pricing for water will result in economic benefits to California, monetary benefits to water rights owners, and increased flexibility and incentives for water efficiency improvements for California's farmers and urban water users.

**Implement the "20 by 2020" urban water conservation requirement, and develop similarly ambitious agricultural water conservation measures.** These should include implementing the existing legal requirement that agricultural water suppliers measure water deliveries and bill based on volumetric water use, and sponsoring legislation to

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Currently, most residents have no idea how much water they use or whether they are using water more or less efficiently than the average Californian.

advance additional conservation measures, such as minimum performance criteria for management and maintenance by agricultural water suppliers; water application and consumption rates for principal crops and soils; and development of an operational definition of water “waste” that can establish a contemporary floor for acceptable water management.

**Encourage low-impact development and water reuse as water conservation measures.** Reusing water for non-potable use, together with designing communities and structures that conserve water, can dramatically reduce the need for water in our built environment.

**Provide more information to consumers and businesses about their water use.** To encourage water efficiency, not only must water be priced effectively, but water usage must also be communicated effectively. Currently, most residents have no idea how much water they use or whether they are using water more or less efficiently than the average Californian. For example, “smart water meters”, similar to smart meters for electricity, can communicate water usage in real-time to homeowners and tenants in multifamily dwellings.

**Develop a long-term financing plan to implement the Delta management plan and other water supply needs.** The water bond currently slated to be voted on in the 2012 election will not accomplish this goal effectively, and the Governor should consider removing it from the ballot. An effective water financing system would rely less on the State's General Fund, would prioritize the needs of vulnerable citizens, and would provide incentives for efficiency.

## Preserve our coastal resources

California's coastline is perhaps its most important natural resource. In 2000, California's ocean economy was 3.2% of gross state product and accounted for more than 6% of California's employment. With an average of four annual trips to the beach for every Californian, it is not surprising that an overwhelming majority of Californians are willing to protect the coastal environment even at significant cost. Yet coastal protection remains largely an unfunded goal in California. A study done for the California Ocean Protection Council identified five programmatic funding needs related to coastal protection in California: management of contaminants, coastal habitat quality, fisheries, development and state coastal lands.



The Governor should prioritize coastal protection by taking these steps:

- Improve ocean water quality monitoring. This could be addressed in conjunction with a broader reorganization of environmental monitoring in California, discussed above in Part I (Improve environmental monitoring and modeling).
- Manage coastal development and state coastal lands with the threat of sea level rise in mind, as discussed above in Part II (Ensure California's resilience to a changing climate).
- Consider the forty options for financing coastal and ocean protection



discussed in the Ocean Protection Council report. These options are a combination of fees, royalties, and fishing quotas that could raise approximately \$1 billion in annual revenue. Many of these options interlink with other environmental issues in California, such as offshore renewable energy development, toxics regulation and protection of water quality.

- Use fees or other pricing mechanisms to deter misuse of California's coastal resources. A fee on toxic chemical discharge or nutrient pollution would deter discharges and inefficient use of fertilizers and chemicals in California, benefiting not just California's coastal environment, but also its water quality as a whole. A system of individual transferable fishing quotas could protect California's fishing industry, help to reverse declines in fish stock, and, if implemented carefully, help support individual fishermen.
- Increase enforcement of coastal regulations to deter illegal pollution activities while bringing revenue (in the form of monetary penalties) to the state.

### Reduce chemical risks

California's Green Chemistry initiative, AB 1879 (Feuer, 2008), marks the beginning of a dramatic shift in chemical regulation. Al-

ternatives analysis, along with identifying and prioritizing chemicals of concern, has the potential to reduce Californians' exposure to dangerous chemicals without sacrificing California's economy. Unfortunately, the Department of Toxic Substances Control currently lacks the funding, resources, enforcement support, and political capital necessary to implement the ambitious vision of the Green Chemistry initiative.



The Governor should take the following steps to set the stage for reducing chemical risks:

**Seek a legislative solution to provide stable funding of DTSC's Green Chemistry program.** This could be accomplished through a combination of enforcement penalties and an administrative fee structure based on DTSC's required review of manufacturer's alternatives assessments.

**Convene a blue ribbon panel on how risk assessment is conducted throughout California agencies, with proper comparisons to risk assessment in other states.** Increased inter-operability of risk assessment between California agencies has the potential to provide cost savings and more effective environmental and public health regulation. The blue ribbon panel should also consider the use of a comparative alternatives-based

approach as the baseline for environmental and public health regulation, instead of the current over-reliance on risk assessment.

**Ensure that new pesticide approvals are consistent with state-of-the-art scientific knowledge.** The California Department of Pesticide Reform (DPR) recently announced its plan to approve methyl iodide for use on California strawberries, despite the fact that the chemical is on the State's list of chemicals known to cause cancer or reproductive harm, and despite findings by DPR's scientists that methyl iodide use poses "significant health risks." The plan is inconsistent with the findings and conclusions of the independent expert panel report commissioned by DPR. The Governor should request that DPR re-examine its methyl iodide decision, with an emphasis on comparative alternatives analysis. Looking more long-term, the Governor should push for legislation that brings DPR under a similar Green Chemistry initiative to that of DTSC.

**Recommit to prompt issuance of effective Safer Consumer Product Alternatives regulation.** DTSC was unable to meet a mandatory January 2011 deadline for issuance of regulations implementing AB 1879's alternatives-based approach. Many stakeholders from varied perspectives supported this delay citing significant concerns with the latest proposed regulations. Given the clear mandate of the statute, and the human health, environmental and economic benefits of the program, the Governor should ensure that the rulemaking not languish and that the final regulations adequately protect public health.

## Improve air quality

The connections between air quality, public health and a strong economy are undeniable. Ozone and particle pollution shorten life spans, exacerbate asthma attacks, and increase the risk of chronic obstructive pulmonary disease and pneumonia. Children, elderly and poor populations are particularly at risk from air pollution. In 2010, the California Air Resources Board estimated that 9,200 people in California suffer premature deaths from particle pollution annually.<sup>1</sup>

While California has made much progress on air quality since the 1960s, it is not enough. California cities still comprise seven of the nation's top ten most polluted cities by short-term particulates, and eight of the top ten most polluted for ozone. These forms of pollution affect both urban and rural residents of the State. California is also at risk of failing to meet the Clean Air Act's requirements for cleaning up the air under its State Implementation Plan (SIP). As we learn more about the risks posed by air pollution, it is clear that we must do better to protect our residents' health.



To improve air quality, the Governor should:

**Encourage State regulation of indirect air pollution sources.** The State could, for example, encourage other districts to follow the lead of the San Joaquin Valley Unified Air District, which has adopted an innovative program of regulation tackling indirect air pollution sources such as construction sites. Just recently upheld by a California appellate court, the program is projected to significantly reduce construction-related air quality impacts in the Central Valley.

**Step up the monitoring of ultrafine particulate matter, which causes thousands of premature deaths.** Particulate matter often concentrates in localized "hot spots" near highways and other major roads; in order to effectively meet health-based legal standards and to protect public health, our air districts must obtain sufficient high-quality data from affected areas through enhanced monitoring. In 2012–2013, the State will have to implement measures to monitor NO<sub>2</sub> near major roadways. In conjunction with that program, the State should also implement a plan to monitor ultra-fine particulate matter, which poses at least as great a localized threat to public health.

**Implement diesel regulation on a more aggressive timeline.** Short-term economic considerations have led the California Air Resources Board to relax and slow down the implementation of important rules to

The California Air Resources Board recently estimated that 9,200 people in California suffer premature deaths from particle pollution annually.



control diesel emissions, including the phase-out of old equipment that pollutes far more than new equipment. But the costs of failing to clean up the air are greater, since the particulate matter emitted by diesel causes great harm to our most vulnerable residents. Air districts with the worst air quality in the State have noted that relaxing the diesel rules leaves “little or no margin for error” for California to meet federal requirements under our State Implementation Plan—and if we don’t meet those requirements, California will be subject to severe sanctions. In order to protect public health and to make sure we comply with our SIP obligations, the State needs to reinstate aggressive regulation of diesel emissions.

**Ensure that California’s air quality regulators issue variances only in extraordinary circumstances.** Under California law, the Air Resources Board exercises oversight authority over variances issued by local air districts, which allow polluters to violate State air quality permits and rules under limited, emergency-type circumstances. But in some air districts, variances are commonplace, even though the emissions may violate federal laws. The pollution allowed by these variances disproportionately impacts our most vulnerable communities. The State should make sure that variances are issued only in the most extraordinary circumstances warranting emergency relief.

**Promote all-electric vehicles.** California should regulate and incentivize motor vehicle manufacturers to ensure a future that includes robust development and adoption of all-electric vehicles. As California shifts its electricity supply to renewable sources, all-electric vehicles serve increasingly important roles in the re-

duction of air pollution and greenhouse gas emissions. To encourage this future, the State should invest in the infrastructure necessary to support these vehicles, such as widely accessible charging stations, and include residence-based stations in the PACE financing program.

### Support parks, biodiversity and open space

At California’s heart are its public lands, parks, and open spaces. The state has the most extensive state public parks network in the United States and some of the country’s most important open spaces and habitats. These lands are central not only to preserving biodiversity and low-cost recreational opportunities for all, but also to improving public health and our economy. Yet California’s parklands and open spaces are besieged. Every year brings new threats, not just from the private sector but also in the form of public works and raids on park funding and other resources. California’s parks and open spaces, for example, are too often seen as the paths of least resistance for roads, transit, and other public projects. But once these areas are despoiled, we lose their long-term benefits forever.



The Governor should **take a strong stand in favor of protecting and preserving parks, open space, and biodiversity for future generations**, by:

- Working for stable, long-term funding for state parks. Although Proposition 21 was recently defeated, the Governor should continue to push an agenda that secures stable funding through a vehicle fee mechanism or other means.
- Where possible, working for habitat restoration and land acquisition.
- Resisting all threats to park integrity from proposed roads and other projects. The years-long battle over the proposed southern Orange County toll road extension through the heart of San Onofre State Park showed how passionately communities will defend their parks, but such proposals should be resisted at every turn.
- Supporting reforms to the CalFire program that focus state resources on truly rural areas and require local governments, developers or homeowners to finance fire fighting in low density suburban and estate developments. According to the Legislative Analyst's Office, CalFire's expenditures for fire protection have increased to nearly \$1 billion due in part to the development of more housing in fire-prone areas. Local governments and developers are responsible for land use deci-

sions that place low density developments in former open space and should therefore take responsibility for the costs involved, starting with fire protection.

## Conclusion

California's leadership in environmental protection has been a signature achievement. Governor Jerry Brown has an historic opportunity to build on that leadership, to craft a strong foundation for environmental protection that can overcome threatened climate instability, energy insecurity and other emerging risks to California's environment, public health and economic prosperity. By recognizing and emphasizing the synergies between environmental protection and economic prosperity, California will once again lead the nation and the world into a better future.

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## Errata

<sup>1</sup> An earlier version of this report stated that the estimated annual premature deaths from particle pollution was 18,000, from CARB's 2009 report:

Cal. Air Resources Board, Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California (Dec. 2009), at 1,

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The new figure, 9,200 annual premature deaths, is from CARB's 2010 report:

Cal. Air Resources Board, Estimate of Premature Deaths Associated with Fine Particle Pollution (PM<sub>2.5</sub>) in California Using a U.S. Environmental Protection Agency Methodology (Aug. 2010). at 1,

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